*Polymer Testing* (11) (1992) 395–397

# CONTENTS OF VOLUME 11

*Number 1*

Editorial . . . . . 1

Use of LDPE as Matrix Material in Rubber Sample Preparation for IR Analysis 3
S. ROY & P. P. DE (India)

A Comparison of Charpy and Izod Test Modes for Polystyrene . . . . . 13
M. G. ROGERS & A. PLUMTREE (Canada)

Deduction of the Temperature Dependence of the Stiffness from Softening Temperature Measurements . . . . . 23
K. PORZUCEK (France)

Apparatus for Measuring Hydrodynamic Friction: Application to Coatings . . . 37
M. CAMAIL, A. MARGAILLAN, J. L. VERNET & J. P. PAUTASSO (France)

Stress Relaxation Measurement of Rubber in Tension—A New Technique . . . 47
A. B. OTHMAN & C. HEPBURN (UK)

Effect of Gamma and Electron Irradiation on the Mechanical Strength of Glass Fibre Reinforced Polymer (GFRP) . . . . . 61
V. DUBEY, R. BAJPAI & S. C. DATT (India)

Air-borne Sound Absorption and Sound Speed in Talc-Filled Polypropylene . . 71
M. ALONSO, A. GONZALEZ, A. REQUEJO, M. ARRIBAS & J. A. DE SAJA (Spain)

Announcements . . . . . 79

*Number 2*

Editorial . . . . . 81

Equipment and Test Procedure for Uniaxial and Biaxial ESC Investigations on Plastics . . . . . 83
LUDWIG VOLLRATH (Germany)

Correlation between Molecular Structure and Rheological Behaviour of Polypropylene . . . . . 89
KLAUS BERNREITNER, WOLFGANG NEIßL & MARKUS GAHLEITNER (Austria)



*Polymer Testing* (11) (1992)—© 1992 Elsevier Science Publishers Ltd, England. Printed in Northern Ireland

A Sample Temperature Rise Prediction and Correction Method for Biconical Rotor Rheometers . . . . . 101
S. N. GHAFOURI & P. K. FREAKLEY (UK)

The Determination of Threshold Strain of Rubber in Ozone Resistance Tests . . 117
G. J. LAKE (UK)

Treatment of Polyethylene and Polypropylene with Chlorosulphonic Acid to Study the Surface Morphology . . . . . 139
M. M. KALNINS, M. T. CONDE BRAÑA & U. W. GEDDE (Sweden)

On the Analysis of the Raman Internal Modes of Crystalline Polyethylene . . . 151
M. FAILLA, R. G. ALAMO & L. MANDELKERN (USA)

Book Review . . . . . 161

Announcement . . . . . 163

*Number 3*

Editorial . . . . . 167

The Effect of Temperature on the Critical Failure Properties of Advanced Polymer Composites . . . . . 169
H. AGLAN, Z. QIAN & D. MITRA-MAJUMDAR (USA)

Mechanical Properties of Guar Gum, Polyacrylonitrile and their Composites . . 185
P. PARASHAR, S. C. DATT, A. JAIN & U. D. N. BAJPAI (India)

Fibres from Polypropylene/Polyamide 6 Blends: Application of FT-IR Dichroism for Study of Fibre Molecular Orientation . . . . . 193
O. ĎURČOVÁ, I. GRÓF, M. JAMBRICH & P. MIZERÁK (Czechoslovakia)

Revealing the Phase Structure of Polymer Blends via Volume Relaxation . . . . 205
F. LEDNICKÝ, J. HROMÁDKOVÁ & J. KOLAŘÍK (Czechoslovakia)

Methodology for Determining the Degree of Impregnation from Continuous Glass Fibre Prepreg . . . . . 215
P. PELTONEN & P. JÄRVELÄ (Finland)

Studies on the Microhardness of Glass Fibre Reinforced Polymer (GFRP) . . . 225
V. DUBEY, R. BAJPAI, P. PARASHAR & S. C. DATT (India)

Opto-Mechanical Properties of Fibres—4: Optical Anisotropy in 'Terylene' Polyester Fibres . . . . . 233
A. A. HAMZA, I. M. FOUDA, T. Z. N. SOKKAR, M. M. SHAHIN & E. A. SEISA (Egypt)

*Number 4*

Editorial . . . . . 247

The Design and Evaluation of an Instrumented Impact Tester . . . . . 249
D. BARKLEY & M. AKAY (UK)

Fracture Toughness Determination of ABS Polymers Using the *J*-method . . . 271
CELINA R. BERNAL, PATRICIA M. FRONTINI & RUBEN HERRERA (Argentina)

A Perforation Method for Strength and Elongation Testing of Thermoplastic Films . . . . . 289
M. PORUBSKÁ, R. KRB & Ľ. WELNITZ (Czechoslovakia)

Opto-mechanical Properties of Fibres—5: Refractive Index Profile of Stretched 'Terylene' Polyester Fibres . . . . . 297
A. A. HAMZA, I. M. FOUDA, T. Z. N. SOKKAR, M. M. SHAHIN & E. A. SEISA (Egypt)

A Test for Slow Crack Growth Failure in Polyethylene under a Constant Load . 309
X. LU & N. BROWN (USA)

Announcements . . . . . 321

*Number 5*

Editorial . . . . . 323

Fatigue Testing of Rubber Materials and Articles . . . . . 325
J. ROYO (Spain)

A Method to Calculate a Global Performance Index for Materials. An Application to Thermoplastic Polymers . . . . . 345
G. BARBIROLI & M. FIORINI (Italy)

Imaging Chemiluminescence Analysis—Instrumentation and Applications . . . . 357
BENGT MATTSON, ANNA KRON, TORBJÖRN REITBERGER (Sweden), ANGELA Y. CRAIG & RONALD H. FLEMING (USA)

A Simple Method for the Assessment of Molecular Orientation in Transparent Plastics Mouldings . . . . . 373
DEREK A. HEMSLEY & A. MARK ROBINSON (UK)

Microhardness Measurements of Poly(methyl methacrylate) and Poly(vinylidene fluoride) Polyblends . . . . . 387
R. BAJPAI, VIBHU MISHRA & S. C. DATT (India)

Announcements . . . . . 393